

CLAIMS

1. A measuring instrument, comprising:
 - a main body having a female thread; and
 - a spindle having a lead screw screwed with the female thread and capable of being advanced and retracted in an axial direction along with rotation around the axial center, wherein
 - a pitch of the lead screw is twice as large or more than the difference between an external diameter and a core diameter of the lead screw, and the difference between the external diameter and the core diameter is one-fifth or less of the external diameter.
- 5 10 2. The measuring instrument according to claim 1, wherein
 - the main body has an anvil at an end of a substantially U-shaped frame and a female thread at the other end thereof,
 - the spindle has a lead screw screwed with the female thread, is screwed with the other end of the main body, and is advanced and retracted against the anvil along with screwing rotation of the spindle,
 - 15 the measuring instrument, including:
 - the main body;
 - the spindle;
 - a detector that detects displacement of the spindle in the axial direction
 - 20 according to a rotation amount of the spindle; and
 - a display unit that displays a measurement value on the basis of a detection signal from the detector.
3. The measuring instrument according to claim 2,
 - the detector, including:
 - 25 a stator provided on the main body;
 - a rotor facing to the stator;
 - an engaging groove provided on the spindle along the axial direction;
 - an engaging pin provided on the rotor for engaging with the engaging groove; and

a pressurization unit that pressurizes the engaging pin toward the engaging groove.

4. The measuring instrument according to claim 3, wherein the stator and the rotor constitute a rotary detector of electromagnetic induction type.

5 5. The measuring instrument according to claim 3, wherein the stator and the rotor constitute a rotary detector of electrostatic capacitance type.

6. The measuring instrument according to any one of claims 3 to 5, wherein the engaging pin is provided in a manner capable of sliding in a direction orthogonal to the axial direction of the spindle,

10 the pressurization unit fixed on the rotor at an end thereof has a leaf spring at the other end thereof to pressurize the engaging pin toward the engaging groove.

7. The measuring instrument according to any one of claims 3 to 6, wherein the engaging groove is formed in V-shape and a tip end of the engaging pin abutting on the engaging groove is formed in spherical shape.

15 8. The measuring instrument according to any one of claims 1 to 7, wherein adjacent thread grooves of the lead screw are formed to have predetermined intervals in a direction along a screw axis line, and an intermediate portion of thread grooves is defined between the adjacent thread grooves as a straight line along the screw axis line on a cross-section along the screw axis line.

20 9. The measuring instrument according to any one of claims 1 to 8, wherein the female thread has screw threads of the same pitch as that of the thread grooves, as seen in a direction along the screw axis line of the female thread, the adjacent screw threads being formed with predetermined intervals, and an intermediate portion of threads being defined between the adjacent screw threads as a straight line along the screw axis line on a 25 cross-section along the screw axis line.